

PATENT COOPERATION TREATY

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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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PCT

BY: CA

WRITTEN OPINION

(PCT Rule 66)

Applicant's or agent's file reference 2540-0597		Date of Mailing (day/month/year) 04 MAR 2004
International application No. PCT/US03/04707		REPLY DUE within 2 months/days from the above date of mailing
International filing date (day/month/year) 19 February 2003 (19.02.2003)	Priority date (day/month/year) 15 February 2002 (15.02.2002)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): H04N 7/173 and US Cl.: 725/98		
Applicant AVOCENT CORPORATION		

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: **15 June 2004 (15.06.2004)**

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Form PCT/IPEA/408 (cover sheet)(July 1998)

WRITTEN OPINION

International application No.

PCT/US03/04707

I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-18, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the claims:
 pages 21, as originally filed
 pages NONE, as amended (together with any statement) under Article 19
 pages 19-20, 22-23, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the drawings:
 pages 1-8, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages NONE, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
 These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

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IV. Lack of unity of invention

1. In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
☒ paid additional fees.
☐ paid additional fees under protest.
☐ neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☒ all parts.
☐ the parts relating to claims Nos. ____.

WRITTEN OPINION

International application No.
PCT/US03/04707

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>1-20</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-15</u>	YES
	Claims <u>16-20</u>	NO
Industrial Applicability (IA)	Claims <u>1-20</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Please See Continuation Sheet

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 2. Citations and Explanations:

Claims 1-7 and 11-15 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest an analog video switch with a memory device to store a predetermined table of response characteristics of a specified conductor paths type when said conductor path type receives a set of predetermined frequency tones; [and] a testing circuit in communication with the different conductive paths to record a measured response of said conductive paths to said set of predetermined frequency tones; [and] an equalizer circuit to apply compensation signals ... in relation to said measured response.

Claims 8-10 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest analog video de-skew circuitry for video compensation of color video transmitted on cables having different transmission delays with a switch, square up circuitry, a phase detector, and an "integrator coupled to the output of the phase detector; a digitizer to digitize the output of the integrator; a processor to produce control signals in response to the output of the integrator; and delay circuits to impose selective delays on the three color video components based on the control signals."

Claims 1-7 and 11-15 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Claims 8-10 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Claims 16-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Claims 16-20 lack inventive step under PCT Article 33(3) as being obvious over Adriaenssens et al. (5,997,358).

With respect to claim 16, the claimed cable connector to electrically couple conductive transmission lines is met as seen in Fig. 6. As taught in col. 6:43-65 eight conductive paths may be provided as claimed, as seen in Fig. 6 these conductive paths are arranged in a "housing containing electrical conductors" with "one of the fifth and sixth conductors is physically closer to the seventh and eighth conductors." The conductive paths may be crossed via a "capacitive element" to reduce crosstalk in the connector, including between "one of the other fifth and sixth conductors and one of the seventh and eighth conductors" is seen in Figs 9 and 10, also showing conductive path pairs. These pairs, however, are not explicitly taught by Adriaenssens to be red, green, and blue conductors for carrying differential analog and digital signals. However, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the system of Adriaenssens by coloring the conductive paths and allowing analog and digital

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

signals in order to allow a user to accurately differentiate the conductive paths and utilize the connector to carry varying signal types.

With respect to claim 17, the claimed capacitive element "to substantially neutralize the effect of induced capacitive coupling between said physically closer one of said fifth and sixth conductors and said physically closer seventh or eighth conductors" is taught in col. 5:54+ through col. 6:32.

With respect to claim 18, the claimed order of connectors is met with reference to Fig. 6. Examiner notes that when interpreting this claim, numbering of conductors is entirely discretionary.

With respect to claim 19, the claimed arrangement in a line with fourth, third, sixth, second, first, fifth, eighth, and seventh conductor with a capacitive element between the sixth and eighth conductor is met as previously noted by using capacitive elements between conductors. See also Fig. 9 and 10. Again, examiner notes that when interpreting this claim, numbering of conductors is entirely discretionary.

With respect to claim 20, the claimed value being selected to equate the inter-conductor capacitance between "the sixth and eight conductors and the fifth and eighth conductors" is met as previously noted in col. 5:54+ through col. 6:32.

Claims 16-20 lack inventive step under PCT Article 33(3) as being obvious over Hashim (5,967,853).

With respect to claim 16, the claimed cable connector to electrically couple conductive transmission lines is taught in col. 2:12-18. As taught in col. 4:24-31 eight conductive paths (four pairs) may be provided as claimed, and may be contained in a plug / jack as taught in col. 2:58-62, claimed "housing containing electrical conductors" with "one of the fifth and sixth conductors is physically closer to the seventh and eighth conductors." The conductive paths may be crossed via a "capacitive element" to reduce crosstalk in the connector (col. 2:36-62), including between "one of the other fifth and sixth conductors and one of the seventh and eighth conductors" is seen in Fig 3, also showing conductive path pairs. These pairs, however, are not explicitly taught by Adriaenssens to be red, green, and blue conductors for carrying differential analog and digital signals. However, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the system of Adriaenssens by coloring the conductive paths and allowing analog and digital signals in order to allow a user to accurately differentiate the conductive paths and utilize the connector to carry varying signal types.

With respect to claim 17, the claimed capacitive element "to substantially neutralize the effect of induced capacitive coupling between said physically closer one of said fifth and sixth conductors and said physically closer seventh or eighth conductors" is taught in col. 3 and 4.

With respect to claim 18, the claimed order of connectors is met with reference to Fig. 3 showing four pairs. Examiner notes that when interpreting this claim, numbering of conductors is entirely discretionary.

With respect to claim 19, the claimed arrangement in a line with fourth, third, sixth, second, first, fifth, eighth, and seventh conductor with a capacitive element between the sixth and eighth conductor is met as previously noted by using capacitive elements between conductors. See also Fig. 3. Again, examiner notes that when interpreting this claim, numbering of conductors is entirely discretionary.

With respect to claim 20, the claimed value being selected to equate the inter-conductor capacitance between "the sixth and eight conductors and the fifth and eighth conductors" is taught in col. 3:33+.

----- NEW CITATIONS -----

NONE